U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-334/78-29

Docket No. 50-334

License No. DPR-66 Priority -- Category C

Licensee: Duquesne Light Company

435 Sixth Avenue

Pittsburgh, Pennsylvania 15219

Facility Name: Beaver Valley Power Station

Inspection at: Shippingport, Pennsylvania

Inspection conducted: October 23-25, 27, 1978

Inspectors: A. N. Fasano, Reactor Inspector — Nov 6, 1978 date signed

G. A. Walton, Reactor Inspector — Nov. 6, 1978 date signed

_____ date signed

Approved by: for S. D. Ebneter, Acting Chief, Engineering Support Section No. 1, RC&ES Branch — November 14, 1978 date signed

Inspection Summary:

Inspection on October 23-25, 27, 1978 (Report No. 50-334/78-29)
Areas Inspected: Routine, unannounced inspection by two regional based inspectors of the new high density spent fuel racks and inservice inspection data. The inspection involved 27 inspector-hours on site by two NRC regional based inspectors and 9 inspector-hours by one NRC regional based inspector at the Duquesne Light Headquarters in Pittsburgh.
Results: No items of noncompliance were identified.

Region I Form 12
(Rev. April 77)

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DETAILS

1. Persons Contacted

Duquesne Light Company

*R. F. Balcerek, Maintenance Engineer
*J. A. Hrivnak, Station QA
*C. E. Kirschner, QC Engineer
*J. Kowalski, Engineer
*F. J. Lipchick, Station Quality Insurance
*J. F. Mark, Engineer
A. C. Mazukna, QC Supervisor
G. Ritz, Project Structural Engineer
*J. E. Starr, Site Engineer
*J. A. Werling, Station Superintendent
*H. P. Williams, Chief Engineer

Factory Mutual Insurance

*F. N. Henderson, Authorized Nuclear Inservice Inspector

* denotes those present at the October 27, 1978 exit interview

2. Plant Tour and Plant Status

The inspectors examined the new fuel storage racks in the spent fuel pool. Work had been performed on the base plates located at the floor level of the spent fuel pool to accommodate the new fuel storage racks. One new spent fuel rack was in place, except for support blocks being welded to the base plates, and ready for preliminary level and plumbness checks. The plant was in cold shutdown status. Current schedules indicate a return to power operation by November 19, 1978.

3. New Fuel Storage Racks

The inspector examined engineering records for control over changes to the spent fuel pool and the new spent fuel racks. The following Engineering Change Notices, ECNs, were examined:

-- ECN-11, June 21, 1978, regarding instructions for weld traceability affecting DCP-097, Installation, Inspection and Construction Procedures for High Density Fuel Racks

-- ECN-14, July 7, 1978, Crane Load Test Instruction and Levelness Inspection

-- ECN-15, July 20, 1978, Cancellation of Plumbness Test

-- ECN-16, August 21, 1978, Cask Area Gate Interference

-- ECN-17, September 28, 1978, Existing Angle Restraints Interference

-- ECN-18, October 4, 1978, Jack Screw Changes

-- ECN-19, October 4, 1978, Changes to Hold Down Arrangement

-- ECN-21, October 25, 1978, Changes to Installation Instructions

The changes affected the installation procedures and the drawings. The inspector sample checked the official drawing file for changes to drawing 8700-3.52-5B, Revision 1, as prescribed by ECN-18. The changes correspond to the requirements. The control of changes and the documentation appear to be satisfactory.

The installation procedure and drawings examined lacked specific torque values for set screws used to lock rack seismic restraints. The licensee plans to determine a set screw torque value for locking purposes and specify this value for the set screws. Witnessing by QC is planned for the work and bolting. This is an unresolved item pending the inclusion into the procedure of the torque requirement for the set screws (334/78-29-01).

4. Inservice Examination Activities

The inservice inspection program conducted during the current outage was to satisfy the requirements of the facility technical specification, 10 CFR 50.55a(g) and the 1974 Edition of ASME, B&PV Code, Section XI including the Summer 1975 Addenda.

The inspector audited the data of the following welds to ascertain compliance:

-- Main Steam, Loop 1, Welds 8LS and 9

-- Pressurizer, Welds 1, 2, 3, 4, 5, 6 and 7

-- 14" Pressurizer Surge, Weld 9DM

-- 4" Pressurizer Spray, Welds 5, 6, 7, 52DM

-- 6" Low Head, Cold Leg, SIS Weld WS-1

-- Reactor Coolant Pipe Weld 4DM

-- Pressurizer Spray, Hanger and Support

-- 4" Pressurizer Spray, Hanger Fillet Weld W5-5

-- Steam Generator, Loops 1, 2, 3 Welds 1-1, 2-1, 3-1

-- Pressurizer, Weld 7

The review of the above welds was performed to ascertain compliance in the following areas:

- The method, technique and extent of examination comply with the ISI program
- The recording, evaluation and disposition of findings are in compliance with the NDE procedure and ASME, Section XI, Code
- The method used for examination is in accordance with the ISI program
- Unacceptable findings were properly dispositioned and reinspected after defect removal (if applicable)

The review of Steam Generator welds 1-1, 2-1 and 3-1, the pressurizer weld 7 disclosed the following unresolved item.

The base material adjacent to the above welds is SA508 Class 2 (forged material) on one side and SA 216 Grade WCC (cast material) on the other side. The calibration blocks used to calibrate the instrument were SA 508 Class 2.

The applicable Code, Section XI, paragraph I-3121 requires that: "When it is not possible to fabricate the block from material taken from the component, the block may be fabricated from a material of a specification included in the applicable examination volumes of the component. It is required that acoustic velocity and attenuation of such a block be demonstrated . . . ."

The calibration blocks used for the above examinations were not of the same material specification on one side of the weld i.e. (SA508 forging vs. SA216 casting) and acoustic velocity and attenuation has not been demonstrated. This item is unresolved pending licensee's analysis and demonstration that the calibration blocks used to calibrate the instrument, for inspection of the above welds were acoustically similar to the base materials and welds inspected (334/78-29-02).

The review of ISI data for those items which required further evaluation and defect removal, e. g. reactor coolant pipe weld 4DM, revealed further examination may be required. Section XI, paragraph IWB-2430 states that: "Examinations performed during any one inspection that reveal indications exceeding the allowable acceptance standards . . . shall be extended to include an additional number within the same category, approximately equal to the number initially examined."

The licensee is presently reviewing the ISI data to determine the extent of additional examination necessary to meet the code requirement. If additional examinations are necessary, the licensee intends to perform these examinations during the April, 1979 refueling outage. This item is unresolved (334/78-29-03).

5. Unresolved Items

Unresolved items are items about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. Three unresolved items disclosed during this inspection are discussed in paragraphs 3 and 4.

6. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on October 27, 1978. The inspector summarized the purpose and the scope of the inspection and the findings.